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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/638,398	08/12/2003	Naoki Matsunaga	Q75720	5464
23373	7590	02/11/2005	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			LE, DUNG ANH	
			ART UNIT	PAPER NUMBER
			2818	

DATE MAILED: 02/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/638,398

Applicant(s)

MATSUNAGA ET AL.

Examiner

DUNG A LE

Art Unit

2818

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 15-21 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8 and 13 is/are allowed.
- 6) ☒ Claim(s) 9-12 and 14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Priority

Acknowledge is made of applicants' claim for foreign priority base on an application 235702/2002 filed in Japan on 3/13/2002.

It is noted that Applicants have filled a certified copy of said application as required by U.S.C 119, which papers have been placed of record in the file.

Oath/Declaration

The oath/declaration filed on 8/12/2003 is acceptable.

Election/Restriction

Application's election **without traverse** of Group I (Claims 1-14) drawn to a semiconductor device is acknowledged for prosecution in the subject application. Applicants have the right to file a divisional, continuation or continuation-in-part application covering the subject matter of the non-elected claims.

Specification

The specification has been checked to the extent necessary to determine the presence of all possible minor errors. However, the applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 9-12 and 14 are rejected under 35 USC 102 (b) as being anticipated by Takemura et al. (6,835,607).

Takemura et al. teaches a thin-film semiconductor device comprising: a first plurality of thin-film transistors having a driving voltage which is lower than a driving range of a second plurality of thin-film transistors, wherein said first and second plurality of thin-film transistors are formed on a glass substrate (figs. 5A-C; col 9, line 25 to col 10, line5), wherein a drain concentration of said first and second plurality of thin-film transistors is in a range of about $3E+19/cm.^{sup.3}$ to $1E+20/cm.^{sup.3}$. (col 7, lines 20- 25).

Regarding claim 10, wherein a plurality of gate insulating films of said first and second plurality of thin-film transistors have substantially the same thickness (figs 5A-C).

Regarding claim 11, wherein said first and second plurality of thin-film transistors comprise N-type and P-type thin-film transistors (col 9, lines 35- 40).

Regarding claim 12, wherein gate insulating films of said first and second plurality of thin-film transistors are formed of substantially the same materials.(col 9 ,lines 25- 40).

Regarding claim 14, a liquid crystal display comprising: a thin-film semiconductor device according to claim 9; and a driver circuit. (col 9, lines30- 35).

Reasons for Indication of Allowable Subject Matter

Set of claims 1-4, 13 and set of claims 5-8 would be allowed.

The following is a statement of reason for the indication of allowable subject matter:

Set of claims 1-4,13 and set of claims 5-8 are considered allowable since the prior made of record and considered pertinent to the applicant's disclosure does not teach or suggest the claimed limitations. Takemura et al. (U.S. Patent No. 6835607 B2) and Background of Invention, taken individually or in combination, do not teach the claimed invention having **(Regarding claim 1)** an electric field of a gate electrode at each of said driving voltages of said first and second plurality of thin-film transistors is in a range of about 1MV/cm to 2MV/cm and **(Regarding claim 5)** an electric field of a gate electrode at each of said driving voltages of said first and second plurality of thin-film transistors is in a range of about .2MV/cm to .8MV/cm.

If Applicants are aware of better art than that which has been cited, they are required to call such to attention of the examiner.

When responding to the office action, Applicants' are advice to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist the examiner to locate the appropriate paragraphs.

A shortened statutory period for response to this action is set to expire 3 (three) months and 0 (zero) day from the day of this letter. Failure to respond within the period for response will cause the application to become abandoned (see M.P.E.P 710.02(b)).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung A. Le whose telephone number is (571) 272-1784. The examiner can normally be reached on Monday-Tuesday and Thursday 6:00am- 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on (571) 272-1787. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DUNG A. LE
Primary Examiner
Art Unit 2818

